SECTION 4.0 COMMENTS AND RESPONSES ON THE DRAFT EIS

Substantive comments received on the Draft EIS during the public comment period are listed in this section, followed by the DEQ response. The DEQ received letters and electronic mail from 14 commenters, and 1 oral comment during the 30-day comment period in December 2001 and January 2002 for a total of 86 comments and responses. Comment numbers corresponding to the source of the comment are identified for each comment source in Section 3.0. Comments in this section are categorized by the following issues of concern:

- Warm Springs Creek Instream Flow and Fishery
- Water Rights
- Water Quality and Waste Water Discharge
- CES Land Application and Disposal Unit
- Pipeline Stream Crossing
- Recreation and Socioeconomic
- Air Quality
- Transportation
- MEPA Procedural
- Miscellaneous

WARM SPRINGS CREEK INSTREAM FLOW AND FISHERY CONCERNS

1. Butte-Silver Bow and Arco can provide legally binding instream flow regimes through an instream lease of water under provisions of the Montana Water Use Act, which would provide long-term assurance and fishery resource protection. This alternative mitigation was not investigated or proposed by the DEIS. It should be. The DEIS proposed mitigation alternative provides no assurance that the fisheries resource will be protected. It is simply a process for a voluntary, yet-to-be articulated management plan.

Response:

The Department has no authority to require BSB, ARCO or CES to change their water rights from industrial use to "in-stream flow" use to protect the fishery. If CES as a project sponsor agrees to pursue the mitigation measure of securing in-stream flows in Warm Springs Creek, CES will need the agreement of other water rights holders to achieve the stated Plan goals.

2. The mitigation assumes incorrectly that seasonal flows of 16cfs is all that is needed for a healthy fishery. This is the minimum level of flow needed to avert catastrophic collapse of the fishery. New assumptions must be formulated to compute flows required for a healthy fishery. This is particularly true for bull trout recovery under the ESA. The DEIS alternative should require assurance for instream flow through a water lease for the duration of the project.

Response: See response to Comment 1.

3. The DEIS outlines mitigation in the form of a voluntary process for establishing a cooperative water management plan. This provides no assurance that the fishery will be protected from the significant adverse impact.

A viable alternative which would assure fishery health would be to mandate that prior to assignment of the water right to CES and prior to any diversion of water that CES identify water efficiency measures (ditch lining, pivots etc.) below Meyers Dam equal to CES diversion right and capitalize the efficiencies thereby creating salvage water to be enforceable leased for instream flow. Similarly, and in addition if needed, CES can purchase irrigable lands below Meyers Dam together with attendant water rights and transfer those rights to instream flow purposes for fisheries health and protection. These methods (perhaps in combination) would provide legally enforceable assurance of mitigated instream flows.

The DEIS needs to incorporate an alternative which will ensure fishery health…even enhance it.

Response: See response to Comment 1.

4. The DEIS concluded that significant fisheries impacts in Warm Springs Creek would not occur unless flows go below the lower inflection point of 16cfs in lower Warm Springs Creek. In addition, the DEIS concluded that 16 cfs was only significant "during the most biologically important times of year for trout (first of April through the end of November" (DEIS Page 4-65). FWP feels these statements are in error and as such the significance conclusions are in error. The lower inflection point is the minimum flow necessary to maintain essential aquatic ecosystem productivity. Below this flow productivity declines rapidly and chronic impacts will occur as a result. As acknowledged in the DEIS, at the lower inflection point of 16 cfs "negative adverse impacts would occur prior to achieving the lower inflection point" (DEIS Page 4-64). Additionally, at a bare minimum, 16 cfs is required <u>year-round</u> to maintain minimal productivity, not just during times of year that adult fish are spawning or migrating. There is no period during the year when flows should fall below 16 cfs. As a matter of policy, FWP always uses the higher inflection point if there are two such points and if the fish population is question is a valuable native or sport fishery. The upper inflection point flow for Warm Springs Creek is 40 cfs. A flow of 16 cfs maintains a basic level of productivity, but may not provide adequate flow for spawning migrations or other important life history stages. Young-of-year and juvenile fish remain in the stream year-round, so a reduction in wetted perimeter directly impacts instream fisheries, and possibly any redds that resulted from fall spawners. As noted in the DEIS at Page 4-64, the inflection points are based on determining the amount of flow necessary to protect habitat in riffle areas and that habitat is important for not just spawning fish, but also for all aquatic organisms that make up the majority of food for trout. FWP feels adverse impacts occur when flows fall below the upper inflection point of 40 cfs and significant impacts occur any time flows fall below 16 cfs. Prolonged flows at or near 16 cfs also will result in chronic, significant affects. Management of the stream for bull trout, westslope cutthroat trout, brown trout, and other important aquatic components should strive for greater flows than the bare minimum needed to keep the system alive.

Response:

The criteria of 16 cfs was used to determine if a significant impact would occur because it was an independently verified, biologically meaningful number. The lower inflection point of 16 cfs in Lower Warm Springs Creek was defined in the Upper Clark Fork Basin Water Reservations Application (DNRC 1988). As noted on page 4-64 of the DEIS, negative impacts would occur to fish within the creek prior to reaching the lower inflection point. These impacts would become increasingly severe as streamflows approached the lower inflection point.

Prior to the increased streamflows that began in 1997, flows in Lower Warm Springs Creek were frequently extremely low. For example, USGS data from the Warm Springs Gauge indicate that in the month of August from 1986 to 1996, median flow was approximately 4.1 cfs. Extremely low streamflows also occurred sporadically at other times in the monitoring period, such as in September 1988 (2.6 cfs), June 1992 (7.1 cfs) and January 1993 (4.2 cfs). Despite these very marginal conditions, low number of bull trout and westslope cutthroat trout apparently persisted in the upper reach of Lower Warm Springs Creek, while an important brown trout fishery existed in the lower reach of Lower Warm Springs Creek. While DEQ agrees that the lower inflection point of 16 cfs may be lower than the ideal condition to sustain a desirable fishery, and that (depending on factors such as the season, water temperature, turbidity, life stage of the fish, etc.) substantially adverse conditions could affect the fishery at streamflows above 16 cfs, the lower inflection point was selected as a realistic significance criterion between between 0 (i.e. no flow) and 40 cfs because it was independently verified (DNRC 1988), and because there is little doubt that the fishery in Lower Warm Springs Creek was significantly affected when flows of 16 cfs regularly occurred, particularly at critical periods. Consequently, DEQ recommended (page 2-59 of the DEIS) that a minimum flow of 16 cfs be maintained in the stream from April 1 through November 30.

5. As a matter of clarification, the lower inflection point of 16 cfs is based on a gauge near Warm Springs, not below the Gardner Ditch. There are several points of diversion below the Gardner Ditch, meaning a flow greater than 16 cfs is required at Gardner Ditch in order to achieve a flow of 16 cfs at the Warm Springs gauge. Also, there are many brown trout redds below the gauge at Warm Springs, as well as downstream of the Gardner Ditch. Lowering flows would expose or otherwise negatively impact this important source of wild brown trout recruitment to the upper Clark Fork.

Response:

It is true that there are other points of diversion downstream of Gardner Ditch. It is also true in the reach below Gardner Ditch that the stream may be either a 'losing stream' (one which loses water naturally to the adjoining aquifer) or a gaining stream (one which gains flow from the adjoining aquifer). Or it might be true that the stream is a losing stream over a part of the year and a gaining stream over a part of the year. Return flow from irrigation (either as direct overland flow or through the groundwater) can also occur in this reach and would affect surface water flows in various amounts during various times of the year. The amount, timing and spatial occurrence of any addition or diminution of flow in Warm Springs Creek from these other effects is not known and would require a considerable amount of investigation. It is possible that what the commentor implies is true (i.e. that more than 16 cfs might have to be passed at Gardner Ditch to insure that there is at least 16 cfs at every point in the stream to its confluence with Silver Bow Creek) but without additional investigation, this additional amount (if any) cannot be quantified.

6. Under the no augmentation flow scenario presented in Table 4-64, the DEIS (Page 4-140) erroneously concludes that bull trout or westslope cutthroat trout would not be impacted by decreases below 16 cfs because they (the low flows <16 cfs) do not occur during the late summer. This conclusion is wrong, because as described

above, the young-of-year and juvenile age classes of these species remain in the stream for up to two years and because chronic dewatering, especially below the lower inflection point, very much negatively impacts the entire aquatic ecosystem.

Response:

DEQ agrees that chronic low flows will affect other life stages of trout species that are present outside of spawning periods. Page 4-140, Section 4.15.1 of the Draft EIS has been revised to indicate that while spawning trout are unlikely to be affected, other life stages that are present in streams year round, such as eggs or juveniles, would be adversely impacted by chronic low flows.

7. We agree with the DEIS that the diversions proposed by CES would have significant harmful impacts on the fishery in Warm Springs Creek. However, the DEIS understates the likely extent of those impacts in several ways. First, DEQ is wrong to assume that significant impacts will not occur unless flows drop below 16 cfs. The fact that a few bull trout have managed to survive in Warm Springs Creek at flows of 40-50 cfs, and some brown trout manage to spawn, does not mean that significant impacts are not occurring at those levels, and certainly does not mean that no additional significant impact will occur until flows reach the inflection points of 16 and 24 cfs. The inflection flows were originally developed as an estimate of the bare-bones minimum levels needed to avoid catastrophe, not as an estimate of the threshold for significant impacts.

Response:

See response to Comment 4.

8. De-watering impacts are not limited to so-called "biologically important period of the year for trout." (DEIS p. 4-67) Juvenile trout are present in the main creek year-round, and critically low flows substantially reduce the rearing habitat they need to survive.

Response: See response to Comment 4.

9. Fourth, it is not appropriate for the baseline to include 33.5 cfs of in-stream flow release from ARCO. ARCO is under no obligation to continue releasing water, and there is no guarantee it will. Moreover, ARCO's does not always release a full 33.5 cfs – and indeed its releases are never this high during dry years when they are needed most, and when CES' diversions will do the most damage. The DEIS should assess impacts based on the assumption that no releases from ARCO will occur.

Response:

DEQ agrees that ARCO is under no obligation to continue supplying water for in-stream purposes. For purposes of analyzing the physical impacts resulting from CES's use of direct flows from the SLWS owned by BSB, the DEIS correctly relied on existing physical conditions, which includes ARCO's practice since 1997 of releasing 33.5 cfs of in-stream flows to Warm Springs Creek. Furthermore, the DEIS also examined a "no augmentation" scenario, in Table 4-65 and accompanying text, which assumed that no releases from ARCO would occur.

10. The DEIS assumes that the water and resultant instream flows currently released by ARCO (under agreement with Butte Silver Bow the water right holder) will remain in

place through the life of the project. While this is possible, it is highly unlikely under current water right authorities and agreements. While we commend ARCO for voluntarily using this water for instream flow purposes, the reality is that ARCO at its discretion can at anytime stop calling for this water or reduce its volume, duration and timing. Further, Butte-Silver Bow can cancel its agreement with ARCO. Thus the impact analysis should be based upon no instream flow available from ARCO. This would likely decimate the already stressed fishery of lower WSC.

Response: See response to Comment 9.

11. The proposed project will divert 6.12 cfs from Warm Springs Creek at Meyers Dam. The analysis of impacts from this withdrawal is based on an assumption that an instream flow of 33.5 cfs is being supplied by ARCO from July to October (DEIS at Paes 3-91, 4-68). While FWP applauds the release of water for instream flow augmentation, and are appreciative of Butte-Silver Bow's commitment to provide instream flow, FWP feels that basing impact conclusions on this assumption is in error. As noted in the DEIS, the value of 33.5 is towards the upper end of what has been released. During a visit to the area during the driest part of 2001, flows were only at approximately 20 cfs. A more average value for the model, or a value based on actual releases over the past four years should be used rather than the unrealistically optimistic value of 33.5 cfs. Additionally, the timing, duration, and quantity of water released are done so at ARCO's discretion, and are not based on any water management plan. ARCO can call for any or none of this contracted water at any time they want during that four-month period. Also, there has been no change of use to instream flow augmentation filed on this water, so it is unprotected, and can be legally diverted by junior water users. Finally, the agreement between Butte-Silver Bow and ARCO can be terminated at any time, meaning instream flow augmentation is not assured. Because of these issues, barring immediate mitigation measures to alleviate these issues, it seems that DEQ must base the impacts analysis on the assumption that no instream flow augmentation will occur – as is presented in Table 4-64 on Page 4-139. As demonstrated in Table 4-64, this results in considerably more periods of time when flows go below the lower inflection point of 16 cfs. FWP recommends that a formal, binding instream flow water management plan can be developed outlining timing and quantity of the instream flow augmentation water in Warm Springs Creek between July and October. Further, it is recommend that Butte-Silver Bow (owners of the water right) file a change of use application with DNRC to protect this water. Barring development of a water management plan and instream flow water right, DEQ should base their analysis on the worst-case scenario – that instream flow augmentation water will not be released in a manner to benefit fisheries in the drainage.

Response: See response to Comment 9.

12. As in the fisheries section, it is not appropriate to include the highly uncertain flow releases from ARCO in the baseline. These releases may or may not occur in the future.

Response:

Baseline conditions were assessed on the existing environment which currently includes in-stream flows released to Warm Springs Creek by ARCO. ARCO and BSB have an existing agreement to augment stream flow and the DEIS assumed continued augmentation in the future

since no other indication was presented. The in-stream releases through this agreement have been in practice since 1997 and ARCO has not indicated that the releases will be discontinued in the future. The 33.5 cfs used in the modeling presented in the DEIS may vary among years however, the 33.5 cfs is supported by the physical capabilities of the SLWS and ARCO's initial modeling of augmentation performed by Leonard Rice Engineers. The data collected since augmentation began in 1997 are varied and include flows above and below the modeled 33.5 cfs. Furthermore, the effects of no release were addressed in Table 4-65 and accompanying text.

13. With regard to the water and water supply available from the SLWS storage rights, the separate water service agreements recognize that portions of the storage system may in fact be required in the future to supplement the direct flow water rights used for industrial purposes when there is otherwise insufficient amounts of water available for the direct flow rights in priority. In this regard, the Plan of Operation for the SLWS, which is part of the existing water service agreements, earmarks defined portions of the capacity of the SLWS storage system for this augmenting role and defined increments of this capacity as the direct flow rights are developed and exercised for industrial use. The more junior the direct flow water right, the more likely it is that storage water will be required to supplement the supply under that right. The residue of the storage and storage rights are made available to AERL under AERL's water service agreement with BSB for "**beneficial uses designated by AERL**," which, again, despite statements in Section 3.5.1.2 of the Draft DEIS to the contrary, may or may not ultimately include "instream flow" to benefit the fishery resource in Warm Springs Creek.

    In any event, for purposes of the draft EIS, the existing environment should have been defined by BSB's existing direct flow water rights that were historically used for industrial purpose by diversion from Warm Springs Creek at Meyers Dam. As neither BSB nor CES purpose to affect any change in that regard to fulfill the industrial demand of CES by or through the application pending before DNRC, it necessarily follows, in so far as the flow of Warm Springs Creek is concerned, that approval of the application will "merely serve to maintain the status quo." Accordingly, approval of the application is "a ministerial action that requires no environmental analysis."

Response:

Section 3.5.1.2, Page 3-47, of the draft EIS has been corrected to eliminate the perception that any residual storage rights made available to AERL under its water service agreement with BSB must be used for in-stream flows.

14. Page 3-90, 3.9.1.2, Special Status Fish Species, pages 4-64 – 4-67, 4.9.1.1, 4.9.1.1.1 – Bull trout live in the lakes and streams above and below Myers dam. Since the water for the CES facility is withdrawn at Myers Dam the only area potentially effected by Butte Silverbow's withdrawal of water is Warm Springs Creek is below Myers Dam. On the rare occasions that water in withdrawn from Silver Lake as make up water for Continental, there would be no impact on flows in Upper Warm Springs Creek and there would be ample water remaining in the Lake.

Response:

The DEIS specifies in the second full paragraph on page 4-67 that the proposed CES withdrawals would not have an impact on current water management or fisheries in Upper Warm Springs Creek above Meyers Dam.

15. Page 3-92, 3.9.2.2, Warm Springs Creek Drainage Basin, - The management of the Silver Lake Water System (SLWS) above Myers Dam will not change due to the addition of CES. Consequently there will be no impact on the lakes and streams that comprise the SLWS above Myers Dam.

Response:

The DEIS specifies in the second full paragraph on page 4-67 that the proposed CES withdrawals would not have an impact on current water management or fisheries in Upper Warm Springs Creek above Meyers Dam. The statement on page 3-92 refers to the potential of any changes in the current management of the SLWS.

16. Page 4-66, 4.9.1.1.1, - Twin Lakes Creek is only diverted during spring runoff and is never dewatered.

Response:

Thank you for your comment and clarification. The term "dewater" in the DEIS refers to a reduction in flow, not elimination of flow. The DEIS acknowledges that Twin Lakes Creek does not completely dewater downstream of the diversion structure but water withdrawals (or some dewatering) within the creek does occur in the management of the SLWS.

17. The draft EIS contains a discussion (page 4-66) regarding the annual dewatering of Twin Lakes Creek. This is incorrect, the stretch of Twin Lakes Creek below the point of diversion is not dewatered.

The diversion structure at this location contains a bypass flume. Water is discharged through this bypass flume at all times during a diversion so that a base flow in the creek is maintained. The practice of bypassing water was initiated several years ago, after an inspection of the system by Wayne Hadley of the Department of Fish, Wildlife, and Parks. During that inspection, Wayne asked me if it would be possible to maintain a flow in the lower reach of the stream. We discussed it onsite and decided upon the use of the bypass flume. This practice has been continued since.

Response:

See response to Comment 16.

18. While the DEIS concludes that CES does not have a direct effect or impact upon the water management or fisheries within the SLWS and upper Warm Springs Creek, that system does have an impact on federally threatened bull trout, westslope cutthroat trout, and the aquatic ecosystem of the Warm Springs watershed. Most notably, the diversion of Twin Lakes Creek to Silver Lake results in dewatering of a significant portion of this stream and that, in conjunction with the diversion structure, fragments Twin Lakes from Warm Springs Creek and the upper Clark Fork. This results in bull trout in upper Warm Springs Creek not being able to access important spawning areas above the diversion. FWP recommends that Butte-Silver Bow develop and implement a water management plan that will maintain instream flows in Twin Lakes Creek, and provide passage between upper Warm Springs Creek and Twin Lakes. There are several state and federal programs that can provide

assistance to achieve this. A commitment to implement such a plan could more than offset adverse impacts to bull trout and cutthroat trout below Meyers Dam as a result of the CES water use. Another positive contribution to help protect and maintain important populations of native fish would be to screen all diversions associated with the Silver Lake-Warm Springs Creek water system to prevent entrainment of fishes. Currently the diversions associated with this system are not screened. If diversions are preventing passage of bull trout or westslope cutthroat trout, they should be evaluated for reestablishment of passage. FWP is willing to work with Continental Energy and Butte-Silver Bow to assess and design screening needs on diversions and help evaluate the need for passage at diversions.

Response:

The proposed action does not include changes in diversions from Twin Lakes.

19. The draft EIS contains a discussion about the maintenance of a base flow of 16 cfs in certain sections of Warm Springs Creek. There is concern that ARCO may not augment flow and that the occurrences of flows below 16 cfs may become more prevalent following the diversion of water for the Continental Project. The draft EIS fails to identify that Butte-Silver Bow has water storage in Storm and Silver Lakes that is independent of the storage that we provide under our contract with ARCO. The volume of this storage is approximately 1,100 acre-feet. In the unlikely event that the ARCO release was unavailable, Butte-Silver Bow could release water from storage to assure a base stream flow of 16 cfs. The draft EIS indicates that a release of 3 to 4 cfs for a brief (one to two week) period would be sufficient to maintain the required base flow.

Response:

The estimate of 3 to 4 cfs for a brief period is an estimate based on historic flows and assumptions about continued release requests from ARCO. The actual rate and volume of water needed to maintain instream flows at or above 16 cfs may be larger or smaller. DEQ encourages Butte Silver Bow to work with Fish, Wildlife and Parks to ensure adequate instream flows are met to maintain the existing fishery with or without the augment provided by ARCO.

20. The errors in the Draft EIS with regard to existing conditions and uses are also underscored in Section 2.1.1.6.1 which provides that the "proposed diversion of 6.19 cfs would utilize storage in Silver Lake and instream flow from Warm Springs Creek." The statement is both factually and legally incorrect. Again, as underscored by the application of BSB pending before the DNRC for an authorization to change existing water rights, the SLWS water rights that will supply CES's generation plant are primarily direct-flow water rights historically used for industrial purposes by diversion of water from Warm Springs Creek at Meyers Dam. As the Draft EIS underscores in Section 4.5.1.1.1, there is little chance that storage will be required to supplement the direct flow rights for CES' diversions. Moreover, despite the statement in the Draft EIS to the contrary, none of SLWS water rights are presently authorized for use for "instream flows." See Mont. Code Ann. § 85-2-408. As indicated above, by their very terms, the SLWS water rights presently authorize the use of water solely for industrial purposes. Accordingly, the Draft EIS simply errs in its premise underlying the entire analysis of the effects of this project on Warm Springs Creek.

Response:

Section 2.1.1.6.1, Page 2-19 of the Draft EIS has been revised to eliminate the perception that CES's proposed use of 6.19 cfs would use water that is authorized for instream flows in Warm Springs Creek. Page 2-19, second paragraph, third sentence has been revised to read "direct flow from Warm Springs Creek" rather than "instream flow from Warm Springs Creek". CES's diversions would be (at times) be supplied by stored water from Silver Lake so there is no need to delete reference to stored water.

21. The DEIS indicates that Butte-Silver Bow may divert up to 12 mgd for industrial use at TIFID. These added diversions will increase the cumulative impacts of CES on Warm Springs Creek, and should be included in a cumulative impacts analysis.

Response:

As a matter of law, BSB's use of its existing water rights to supply other industrial users at the TIFID would not result in cumulative impacts to the existing environment, because BSB's right to use the full extent of its water rights already exists. As a matter of fact, BSB has not applied to DNRC for a change in place of the use of its water right for other industrial users. Since a cumulative impact analysis considers only those actions under concurrent review by another state agency, the cumulative impact analysis in the DEIS did not include BSB's possible future use of its remaining water rights. See ARM 17.4.603(7).

22. Since bull and cutthroat trout are both sensitive species that are very rare in the area, any adverse impacts to them should be considered significant. This should include habitat loss and interference with propagation – not just "direct mortality," as proposed in the DEIS.

Response:

As indicated on page 4-63 of the Draft EIS, significant impacts to fish would result from habitat loss or lowered reproductive success, as well as direct mortality.

23. This designation of Warm Springs Creek as a core area for bull trout indicates that it is among the best remaining spawning and early rearing habitat in the upper Clark Fork, and is important to restoration of the species. In order to achieve restoration of federally threatened bull trout in the upper Clark Fork, it is important that bull trout not be further adversely impacted. Because there may be an adverse affect to bull trout below Meyers Dam, as direct result of this project (DEIS at page 4-67), FWP recommends that CES and Butte-Silver Bow immediately consult with the U.S. Fish Wildlife Service to ensure compliance with the Endangered Species Act and avoid potential delays.

Response:

This recommendation will be forwarded to CES and Butte-Silver Bow.

24. On page 4-65 the DEIS concludes that "since Warm Springs Creek is a core bull trout area …even with flows below 50 and 40 cfs it was determined that these references points would not indicative if a significant impact would occur." This is an erroneous conclusion. Designation of Warm Springs Creek as a bull trout core area does not mean that existing conditions (<40/50 cfs) are adequate for recovery of the species. As stated above, designation as a core area indicates it is the best remaining habitat and this is where recovery efforts should be focused. Chronic

dewatering is a significant impact to bull trout, because they require cold, clean water and complex habitat. To conclude that water withdrawals resulting in flows below 16 cfs will not likely have a significant impact on bull trout "because this species is very uncommon in this area" (DEIS at Page 4-69) is false. Because bull trout are federally listed as a threatened species, any additional negative impacts to any life stage (redds, young-of-year, juveniles, or adults) during any part of the year, are significant.

Response:

The statement on page 4-65 is not intended to indicate that 50 and 40 cfs is adequate for bull trout recovery, just that this is the existing situation. At page 4-64, the EIS recognizes that adverse effects occur prior to achieving the lower inflection point. The EIS has been revised on page 4-67, paragraph 6 to indicate a significant impact to fish if instream flows in Warm Springs Creek are less than 16 cfs at anytime throughout the year. In the preferred alternative, DEQ recommends that CES initiate and support development of a water management plan to address minimum stream flows. The mitigation alternative as been revised to provide mitigation to maintain adequate instream flow throughout the year on page 2-59, Section 2.2.1.2 of the draft EIS. This measure would be voluntary because DEQ does not have the statutory authority to require development of a plan or to enforce such a plan if one is developed in the future.

25. Due to the significant impacts the proposed diversion would have on this fishery, CES should, at an absolute minimum, develop the water management plan called for in the mitigation alternative. To truly reduce impacts, that plan should insure higher minimum flows than the 16-24 cfs called for in that alternative.

Response:

DEQ has no authority to require a water management plan to ensure any level of in-stream flows, because maintaining in-stream flows would require a voluntary agreement among the water rights holders to SLWS and Warm Springs Creek. Consequently, the mitigation alternative discussing a water management plan will depend on voluntary actions that are beyond the Department's control.

WATER RIGHTS CONCERNS

26. The DEIS indicates that Butte-Silver Bow will be applying to DNRC for a change of use permit that will enable its water rights to be diverted for the use of the CES plant. This application was not included among the permits listed in Chapter 1 as the subject of the DEIS. Since the diversion will have a significant impact, does DEQ or DNRC intend to prepare a separate EIS for the decision on the change of use application?

Response:

BSB has not requested a change in the original point of diversion at Meyers Dam. The only change that BSB has requested is a change in the authorized place of use of its SLWS water rights that are designated for industrial purposes. Consequently, DNRC's approval of a change in the place of use of BSB's water right will not result in a change of the existing environment under MEPA, because the existing environment, as a matter of law, includes BSB's right to use the full extent or its water rights.

27. In the Draft EIS, the Department of Environmental Quality ("DEQ") has incorrectly identified "reduction in flow in Warm Springs Creek" as an adverse environmental impact that will result from the provision of process water from the SLWS to the generation plant proposed by CES. For the reasons discussed in detail below, the diversion of water for CES's proposed generation plant through the SLWS will not result in an impact or change whatsoever within the meaning of MEPA as the identified "reduction in flow in Warm Springs Creek" is, and for well over a century has been, fully authorized under the SLWS water rights. In other words, all of the SLWS water rights owned by BSB already authorize the diversion of water from Warm Springs Creek at Meyers Dam for industrial use. Consistent with that authorization, as recognized in the Draft EIS in Section 3.5.1.1, all of the water available from the water rights comprising the SLWS was, in fact, historically diverted from Warm Springs Creek at Meyers Dam and transported through the SLWS pipeline to the authorized places of use.

The applicant of BSB pending before the DNRC for an authorization to change existing water rights does not propose or request any change with respect to the historic practice of diverting the water available from the water rights comprising the SLWS from Warm Springs Creek at Meyers Dam for transportation and delivery through the SLWS pipeline. The only actual change that will result from DNRC's approval of the application is a change in the authorized place of use. Accordingly, DNRC's approval of the application will serve "merely to maintain the status quo" with respect to diversion of water from Warm Springs Creek at Meyers Dam. To that extent, it necessarily follows that DNRC's approval of the application is "a ministerial action that requires no environmental analysis."

Indeed, the Draft EIS conducts an analysis that is constitutionally prohibited. Article IX Section 3(1) of the 1972 Montana Constitution provides that "[a]ll existing rights to the use of any waters for any useful or beneficial purpose are hereby recognized and confirmed."

Accordingly, inasmuch as these existing water rights presently authorize the diversion of the full amounts of the appropriations thereunder at Meyer's Dam, the analysis of alternatives in the Draft EIS that is predicated on the nonuse of all or any part of these water rights simply result in a taking of these real property interests. Moreover, while changing these water rights undeniably requires the authorization of the DNRC, the DNRC's review is limited to whether the proffered change would adversely affect the rights of other appropriators. See MCA 85-2-402. This standard limited the change of water rights at common law, see Castillo v. Kunneman, supra, and, accordingly, the application of this principle cannot license the separate inquiry of whether the exercise of the water rights in accord with their original parameters creaes undesirable adverse environmental effects. As a result, the analysis contained in the Draft EIS is flawed to the extent it focuses upon the nonuse of existing rights, as the State of Montana is constitutionally prohibited from insisting on such a forfeiture of real property.

Response:

DEQ agrees that, as a matter of law, the proposed use of water by CES does not result in a "change" or "new impact" to the environment, since those same changes to the environment

could occur under existing water rights. However, as a matter of fact, there will be a physical change to the environment since CES will be using water that, in recent years, has been available in Warm Springs Creek. For this reason, the DEIS discloses the fact that there may be less water available in Warm Springs Creek due to CES's proposed use of the water.

Since an alternative designed to mitigate impacts from CES's use of the water would not prevent impacts from other water right holders exercising their rights to any water remaining in Warm Springs Creek, no mitigation by CES in the form of "non-use" of a water right is required. The mitigation discussed in the DEIS is strictly voluntary.

28. In the Draft EIS, it appears that DEQ ignored the water rights comprising the SLWS and the water service agreements executed by BSB in favor of analyzing the effects of the non-use of those water rights on Warm Springs Creek flows. With regard to the non use of water rights, it is a settled principle of water law in Montana that no water right authorizes its holder to conduct diversions when the holder lacks a need for a water supply for the purposes of that appropriation.

Cook v. Hudson, 110 Mont. 263, 282-83, 103 P.2d 137, 146 (1940), *rev'd on other grounds* 206 Mont. 184, 193, 670 P.2d 85, 90 (1983). Stated another way, whenever the full measure of water embraced by an appropriation is not required by its holder, that appropriator is required to leave that residue in the source of supply for use by others. This amount is then available to the other users at that source in accordance with the priority dates under their own water rights. *Cook v. Hudson*, supra. As many of the anticipated water uses under the SLWS are still being developed, this principle is significant because, as result of its operation, there has been less water diverted out of Warm Springs Creek in the recent past than there was when all water rights were being exercised for industrial purposes. These facts, however, do not operate to create "instream flow." As the non-use of the SLWS water rights cannot operate to create "instream flow," it necessarily follows that the future exercise of the SLWS water rights in accordance with there full entitlements cannot serve to retard "instream flow." Accordingly, the analysis contained in the EIS in Sections 4.9.1.1.1, 4.9.1.1.2 and 4.15.1 is in error and is irrelevant.

Response:

DEQ agrees that the "non-use" of water rights by CES cannot create "instream flow" as a designated beneficial use, since the non-use of water by CES would not prevent others from exercising their right to use the residual water in Warm Springs Creek. Nonetheless, the analysis of impacts in the DEIS serves the purpose of disclosing impacts that may occur if CES uses its portion of existing SLWS water rights.

29. It is true that AERL, under its water service agreement with Butte-Silver Bow, holds a contractual entitlement from Ueland Ranches, Inc. to insist that Ueland Ranches, Inc. not divert amounts of water otherwise available under specified water rights. Apart from these rights under its water service agreement**,** AERL separately acquired from Ueland Ranches, Inc. and Jess Eighorn 6.25 cfs of their water rights, with a similar commitment. It appears that DEQ confuses this 6.25 cfs with water rights comprising the SLWS in the draft EIS in Section 4.9.1.1.1 and Table 4-20.

Response:

Table 4-20 has been revised. The table title has been changed from "Direct Flow Water Rights from Silver Lake" to "Direct Flow Water Rights from Warm Springs Creek". The table also lists

several water rights to ASiMI, MRI and CES. In actuality, BSB holds a water right for about 38 cfs from which it leases water to ASiMI, MRI and CES. ASiMi, MRI and CES hold no water rights themselves other than the contractual rights related to water that their contract with BSB gives them. Table 4-20 has been revised to reflect actual water rights holders rather than leasees and ARCO's water right is shown as 6.25 cfs.

30. It should also be clarified that, under the above commitment and with the permission and acknowledgment of DNRC, AERL in recent years has been conducting tests in Lower Warm Springs Creek and the Upper Clark Fork River with regard to the amounts of water required to sustain a fishery. Pursuant to MCA § 85-2-439 and the common law of Montana authorizing a change of storage rights for sale, rental, or distribution, one of the purposes for which AERL may elect to use its supplies is the maintenance of "instream flow" for fisheries. If and to the extent that AERL elects to develop such a use, it will require an authorization to change the existing water rights under the SLWS that are earmarked for AERL's use from the DNRC. See, Mont. Code Ann. § 85-2-402. As part of this process, AERL will use the data from the tests it has conducted to establish that the amounts of water that can be beneficially used as "instream flow" for fishery purposes. Proof of the amounts of water required for the changed purpose is a legislative condition to the DNRC's exercise of authority approving a change of water right. See, Mont. Code Ann. § 85-2-402(1)(c).

    This testing conducted by AERL is not relevant to the Draft EIS as AERL is not and cannot be required to maintain or otherwise develop its available water supplies for "instream flow" purposes. Moreover, the "instream flow" amenities available from AERL's testing cannot be sustained unless a change of water right approval is secured from the DNRC. Absent such approval, neither AERL nor any other appropriator has any right to administer the priorities on Warm Springs Creek in a way that sustains an "instream flow." This is exactly why a change of water right authorization is required from the DNRC. Indeed, should no such approval for alternate uses be developed, the underlying water rights will never have an authorized use. Should the underlying rights not have an authorized use, there can be no diversions into storage as there is no use for the stored water. Accordingly, it is not sensible to analyze temporary measures as part of the "existing environment."

Response:

DEQ agrees that ARCO is under no obligation to continue supplying water for in-stream purposes. However, for purposes of disclosing actual physical changes to the environment resulting from CES's proposed use of water that has not been used in recent years, baseline conditions in the DEIS are based on the existing stream flows which includes the past four years of in-stream flows released by ARCO.

31. In Section 2.2.1.2 of the Draft EIS, in order to mitigate the perceived impact on flow in Warm Springs Creek, DEQ has proposed that CES agree to initiate and support a process to develop and comply with a Water Management Plan in the basin that adequately addresses "instream flows." In terms of the process, CES would be required to provide a facilitator to work with water right holders to develop the Water Management Plan. The draft EIS also indicates that the water right holders **must** include BSB and AERL. In terms of the Water Management Plan itself, the Draft EIS establishes two goals: (1) to manage releases from Silver Lake that would enable Lower Warm Springs Creek below Gardner Ditch to maintain no less than 16 cubic feet per second for the period of April 1 through November 30; and (2) to enable BSB

to use all water rights allocated for development of the Silicon Mountain Technology Park.

The imposition of the above obligations upon CES would be inappropriate for several reasons. First, when the two stated goals of the Water Management Plan are considered together with the actual water and water supply available from the SLWS and the allocation of that water and water supply pursuant to the existing water service agreements including, in particular, the water service between BSB and AERL, it is clear that what is actually being proposed is a process through which AERL will be requested to formally designate some portion of the water and water supply available to it from the SLWS for use to maintain instream flow. As indicated above, the beneficial uses that are ultimately designated by AERL may or may not include "instream flow" to benefit the fishery resource in Warm Springs Creek. Whether and to what extent AERL will ultimately so designate a portion of the water and water supply available to it will depend upon AERL's ultimate needs for water in the Upper Clark Fork River Basin and upon the resolution of the pending litigation regarding the State of Montana's claims for natural resource damages. While AERL recognizes that the resolution of the claims for natural resource damages will likely involve a facilitated process with the State of Montana in the context of the pending litigation, it is not anticipated that the process will involve BSB, CSS or other SLWS or Warm Springs Creek water users. In other words, as AERL's determinations and designations will be made independent of any consideration of CES's proposed project or any other proposed project involving the use of water from the SLWS, AERL submits that the facilitated process proposed in the Draft EIS would be wholly inappropriate.

Response:

The Draft EIS does not require CES to develop a water management plan to protect instream flows, but discusses the plan as a voluntary measure that may be used as an alternative to mitigate the impacts of CES's proposed use of water from the SLWS. Since the development of a water management plan to protect instream flows is strictly voluntary, DEQ does not agree that its inclusion in the DEIS is inappropriate.

WATER QUALITY AND WASTE WATER DISCHARGE CONCERNS

32. The introduction to the section on water resources states that impacts will be considered significant if "the quantity of stream flow affecting downstream beneficial uses was altered" (DEIS p. 4-24). As already discussed, the fisheries section concludes that reductions in the quantity of stream flow of Warm Springs Creek will significantly affect the fishery, which is a beneficial use. Despite this, the water resources section concludes that reductions of instream flow in the creek will be "adverse but not significant" (p. 4-37). This is inconsistent with the fisheries section and should be revised.

Response:

Thank you for your comment. The adverse but not significant impact stated on page 4-37 has been revised to significant and denote the fishery section for details. A reference to the fishery section will be provided in the text of Table 4-6 to properly guide the reader.

Table 4-6, page 4-37 of the Draft EIS, first row, Impact Severity column of the DEIS has been changed to indicate a significant impact (due to beneficial use associated with fishery in Warm Springs Creek) and the reader is referred to Section 4.9.1 for details of impact.

Table 5-1, page 5-3 of the Draft EIS, has also been changed to indicate a significant impact from the proposed action from process water diversion for generation plant operations. This impact would be mitigated to no impact under the preferred alternative.

33. In Public Notice No. MT-01-17, the U.S. District Court Judge order says the state is not to issue any new MPDES permits until all necessary TMDLs are established. In the case of Silver Bow Creek, it has a TMDL completion date of 2007. Because of the complexity involved with Silver Bow Creek, meeting this deadline will pose a great challenge. Now that the Silverbow Generation Plant is being proposed, it appears that a scheduling conflict might develop in regards to establishing adequate and defensible TMDLs for Silver Bow Creek. Could you explain how this process will work?

Response:

The State and EPA have established a schedule for completing all TMDLs for Silver Bow Creek by 2007. This schedule, however, does not preclude DEQ from completing TMDLs that are necessary for the issuance of a new permit. According to the Court's Opinion and Order dated November 6, 2000, the DEQ has discretion in determining what TMDLs are necessary prior to issuing a new permit on a water quality limited stream segment. In this instance, the Department has determined that the water quality-based effluent limits for the discharge to Silver Bow Creek are the TMDLs that are necessary for issuing the MPDES permit. Under the court's earlier ruling, water quality-based effluent limits developed in conjunction with MPDES permits are valid TMDLs under the Clean Water Act. Accordingly, the water quality-based effluent limits developed for the MPDES permit will be submitted to EPA for approval as the necessary TMDLs for issuing a new permit to Silver Bow Creek.

34. Page 3-47, 3.5.1.3, Surface Water Quality – The proposed CES plant site gently slopes downhill to the northwest towards Silver Bow Creek not to the southwest towards Sand Creek.

Response:

The first line on Page 3-47, Section 3.5.1.3, will be corrected to state that the plant site slopes downhill to the northwest toward Silver Bow Creek.

35. There are several statements in the EIS that would seem to indicate reclassification of Silver Bow Creek would be tied to completion of remediation and restoration actions. Those include the statement on p. 4-28: "In the future when Silver Bow Creek is restored and its classification upgraded, the MPDES permit would incorporate a temperature limitation in compliance with the stream classification, if necessary, to prevent harmful impacts to aquatic life and other beneficial uses;" and the statement on p. 4-70: "Once restoration efforts are complete, and Silver Bow Creek is reclassified, CES would be required to comply with applicable temperature limitations in its discharge water." We are concerned that this language implies that stream reclassification might be tied to completion of restoration. It might be more appropriate that stream reclassification be tied to improvements that occur in Silver Bow Creek water quality as remediation and restoration actions proceed in a downstream manner. Thus, we suggest that the text should be rewritten so it's clear

that reclassification could occur before remediation and restoration actions are completed. This would be consistent with the language in the draft MPDES permit that has a reopener clause associated with changes in water quality standards in general and does have the additional "timing" language about the completion of remediation or restoration.

Response:

In the first paragraph of section 4.5.1.1.2 on page 4-27, the DEIS states that the MPDES permit would be modified as Silver Bow Creek's water classification changes and does not suggest that remediation and restoration actions must be completed prior to such modifications. The intent of the MPDES permit is to protect water quality and beneficial use under each water classification type.

Statements on pages 4-28 and 4-70 of the Draft EIS expressed in this comment have been revised as follows:

> **Page 4-28, second paragraph, last sentence – If Silver Bow Creek's water classification changes due to remediation and restoration actions in the drainage, the MPDES permit would be modified to incorporate additional limitations in compliance with a revised stream classification, if necessary, to prevent harmful impacts to aquatic life and other beneficial uses.**
>
> **Page 4-70, last paragraph, fourth sentence – If Silver Bow Creek's water classification changes due to remediation and restoration actions in the drainage, the MPDES permit would be modified to incorporate additional temperature limitations in the discharge water. [The MPDES permit already contains a temperature limit of 1 degree change within 2 stream widths of the outfall (standard mixing zone). This is basically B-1 standard.]**

36. Page 2-25, 2.1.1.7.2, MPDES Permit Conditions – The maximum discharge to any one of the proposed outfalls would not be limited in the permit. The anticipated discharge is not greater than 300 gpm. Chromium and Zinc would be limited in Outfalls 002 and 003. Cadmium is not limited in these outfalls.

Response:

The MPDES permit assumed that the maximum discharge to any CES outfall would be approximately 300 gpm based on information received from CES. However, discharge quantity is not specifically limited in the permit. Flow monitoring would be conducted to confirm the maximum 300 gpm discharge rate. In addition, the final MPDES permit would include load limitations that would be based on the 300 gpm discharge rate. Total recoverable chromium and zinc are limited in outfalls 002 and 003 as described by the MPDES permit and cadmium is not limited at these outfalls. The statement as presented on page 2-25 of the Draft EIS has been corrected as the following:

> **"For discharges to Sheep Gulch, TSS, oil and grease, free available chlorine, effluent toxicity, and only chromium and zinc would be limited in the permit. Discharges to the LAD are only limited for TSS and total recoverable chromium and zinc."**

37. Page 4-56, 4.8.1.1, - The wastewater will be instantaneously mixed through a diffuser and the resultant TDS (salt) concentration in the stream will be less than the EPA guideline of 500 mg/L. This will have no impact on wildlife.

Response:

The discussion of impacts to wildlife from wastewater discharge to Silver Bow Creek has been changed in the Final EIS as follows: Third sentence of the third paragraph on Page 4-56 of the Draft EIS has been changed to read "Further, wastewater discharge could deter wildlife."

38. Page 4-144, 4.15.4, Table 4-67, - Discharge limits in Sheep Gulch are based on the narrative standards for and ephemeral drainage not Class "I" standards.

Response:

Discharge limits for Sheep Gulch are based on a combination of standards including narrative, water quality-based, and technology-based standards. The comment is correct in that Class I standards are not applicable to discharges to Sheep Gulch.

The first potential impact listing in Table 4-67 of the DEIS has been corrected in the Final EIS as follows:

> **"Discharge limits set in the MPDES wastewater permit for Sheep Gulch are based on narrative, water quality, and technology standards associated with this ephemeral drainage. B-1 Classified waters downstream could be impacted and water quality standards exceeded for this classification."**

CES LAND APPLICATION AND DISPOSAL UNIT CONCERNS

39. Expected Impacts From the Alternatives, Table S-1, page S-8, Soil Resources, Page 4-19, 4.4.1.1 – The LAD area will have positive benefits in the area of soil erosion because of the increased vegetative cover from an irrigated crop. The land is presently degraded and the LAD mitigation to maintain a salt tolerant crop will increase reclamation potential both in the short term and long term. See mitigations under Vegetation, page S-16.

Response: Thank you for your comment.

40. Expected Impacts From the Alternatives, Table S-1, page S-10, Vegetation Resources, page 4-47, 4.7.1.1, - There will be a positive impact on vegetation within the 100 to 200 acres of LAD area and in other disturbed areas both in the short term and long term. The entire facility area is presently infested with noxious weeds. The mitigation of a weed control plan and planting of native species on disturbed areas will have a beneficial use both in the short term and long term. See mitigations under Vegetation, page S-16.

Response:

The entire facility area is currently vegetated with native grasses, forbs, and shrubs. Some areas have been infested with noxious weeds. The areas used for the LAD will be seeded, or interseeded with both native and introduced grass species. The excess water from the LAD should provide for above average grass densities, cover, and overall production, compared to existing conditions. Noxious weeds should be less of a problem in the LAD area than in surrounding areas.

41. Experience at other sites strongly suggests that the long-term application of highly saline irrigation water will cause the buildup of salt deposits that will eventually destroy the capacity of the soil to grow plants. The DEIS mentions this issue only in passing, noting only that salt buildup may affect the reclamation potential of the soil in some way. This is not an adequate analysis of the issue. The EIS should analyze the key question of whether salt buildup will eventually destroy the soil's ability to support the vegetation the LAD relies upon for uptake of nutrients, even if salt-tolerant species are used. It should also analyze how long this will take, and where the LAD system would be moved at that point.

Response:

Cascade Earth Sciences was contracted by CES to provide a feasibility analysis and conceptual design for land application of process water from a gas-fired power generating facility (Cascade Earth Sciences, July 2001a). During this original characterization and subsequent field efforts (Cascade Earth Sciences 2001b and 2001c), soil samples were collected and analyzed for the major soil physical and chemical properties necessary to evaluate potential impacts to the soils and vegetation from the proposed LAD activities. In addition, the chemical constituents in the proposed wastewater discharge (plant effluent) were estimated from conceptual water characterizations (BetzDearborn 2001, October 25, 2001 letter from Gord Turtureja, Project Engineer BetzDearborn to Terry Webster, CES). These primary technical sources were used to provide the data to evaluate the potential short-term and long-term impacts to the soils and vegetation communities associated with the LAD. The primary salt components important for this evaluation were calcium, magnesium, and sodium. The overall ratio of these salts in the discharge water was determined to be if the same range as these salts in the existing soils. Assuming the LAD is operated as designed and that the required operational monitoring of the soil and discharge water for the LAD is performed, there should be no long-term loss of site productivity.

42. The state has a fiduciary obligation to preserve the long-term value of lands held in trust. If the LAD is going to permanently impair the productivity of state land, it is crucial that the trust be adequately compensated for this loss. If it in not, then the state would be subsidizing CES with trust lands, which is not permissible. Given its industrial development potential – and particularly its proximity to a large electrical supply – the state section at issue is presumably quite valuable, and the state must demand full value for any lease that will encumber its use for the long term. Have any owners of private parcels near the site been contacted to see if they were willing to lease or sell land as an LAD site? If so, what price have they asked? It is important that the state section is not being selected to receive CES' waste merely because that is where CES thinks it can get the cheapest deal.

Response:

The State land management agency (DNRC) is concerned with the long-term productivity of state land and requested additional soil information to better determine the existing soil conditions and potential impacts associated with LAD operations. CES conducted a 3rd order soil survey of all areas being considered for the LAD, including both private and state owned land. Soil baseline information included describing 14 soil test pits and collecting and analyzing numerous surface and subsurface soil samples. The soil baseline information, along with recommended LAD monitoring activities, should provide the information needed to determine if the LAD is causing long-term impacts to the soils.

The state section under consideration for the LAD has been evaluated at $1,500 per acre. CES will be charged 10% of that assessed value per year per acre. A non-state parcel located in the TIFID

is also under consideration. The TIFID land in the SE ¼ of section 35 has been valued at from $3,000 to $2,500 per acre. TIFID land is valued higher because of the available infrastructure in the industrial park. State land would not have access to this infrastructure.

43. The EIS mentions that land value associated with the LAD would likely decrease but does not quantify the amount or duration of value reduction. A mitigation is also not proposed to deal with this value reduction. In order for the decision maker to assess these impacts it would be beneficial to quantify the impact as much as possible.

Response:

The potential for a reduction in land value of the LAD area cannot be quantified because under the Proposed Action, the land would not lose its ability to sustain vegetation in the long run and during the use of the land as a LAD, the value would remain the same or increase (see response to Comment 42). A mitigation measure was not developed for this impact because it is not a significant impact to vegetation in the study area.

44. Page 3-40 Section 3.4.1 Soil Resources, Generation Plant and LAD 2nd paragraph "Surface soil infiltration rates in the LAD were measured and ranged from 3.34 to 8.36 inches per hour; both values are in the moderately rapid range". These values are not accurate for the proposed LAD. Cascade Earth Services (Memo 11/9/01) measured the infiltration rates at 0.6 inches/hr. (pit 36-1), 4.96 inches/hr. (pit 36-2) and 1.49 inches/hr. (pit 36-3) rated moderate to moderately rapid. This should not change the analysis, but may alter the final LAD location and will reduce the rate of application. What are subsoil percolation rates? We asked for this in October, is this to be done during siting as part of the license agreement.

Response:

Four surface soil infiltration measurements were completed in August 2001; 2 measurements near the generation plant pad site and 2 measurements in the proposed LAD area (3.34 and 8.36 inches per hour). During October 2001, 3 additional surface soil infiltration measurements (0.6, 1.49, and 4.96 inches per hour) were completed in the 160 acres of Section 36 proposed for use as the LAD area. These soil infiltration rates are useful for the conceptual design and location of the LAD. Subsurface soil percolation rates are typically less than surface soil infiltration rates but have not yet been determined.

45. Page 4-19 2nd Paragraph Decreased reclamation potential associated with the LAD area and generation plant and pipeline construction activities in mitigable if soil mitigation measures (list or reference mitigation measures in section 2.2.2.2) and LAD monitoring activities are implemented and successful. (there is some uncertainty about what soil mitigations will be implemented and certainty of success). Alternate language, if monitoring determines a decline is surface infiltration or plant growth, then a site specific remediation plan will be developed and implemented or the LAD relocated.

Response:

LAD monitoring activities would be important for determining changes in levels of surface soil soluble salts, soil nutrient and metal concentrations, soil infiltration and percolation rates, and overall changes in site productivity associated with the LAD operations. The EIS has been revised on Page 2-59, Section 2.2.1.3, following the section heading to add the following paragraph:

> **LAD Monitoring Action: if monitoring determines adverse changes in soluble salts, soil nutrient and metal concentrations, soil infiltration and percolation rates, and overall changes in site productivity, CES would develop a "site specific" remediation plan and LAD operation plan at the request of DEQ.**

46. Page 4-14 Land Application and Disposal Area – LAD application is for 152 days per year, which is an increase over the 120 days initially proposed. Mitigation should include no irrigation on the frozen ground.

Response:

The typical duration of frost-free days for the LAD area is 152 days. No new mitigation is necessary.

47. The diagram of the LAD, page 2-3, shows it crossing the railroad tracks. This would not be mechanically feasible given the center pivot/ water sock or sprinklers which are proposed. The diagram should be modified to more accurately represent what is being proposed.

Response:

The exact location of the LAD is not yet known. The LAD would be located in an area that did not conflict with existing infrastructure.

48. If an action alternative is selected the applicant will apply to the Montana DNRC for a land use license to cover a specific number of acres for the LAD. We feel that under the action alternatives if would be beneficial to identify the specific size and location of the center pivots proposed, the potential impacts to the LAD area, mitigation measures which would apply to the impacts, what monitoring is to be required and the eventual remediation measures which will be required when it is no longer needed.

Response:

Construction specifications for the LAD have not yet been developed. CES proposes to comply with all local, state and federal environmental requirements in the construction and operation of the LAD. DEQ evaluated the potential impact from expected LAD operation criteria such as the long-term buildup of soluble salts and its impact on vegetation, reduction of soil infiltration and percolation rates, increased soil erosion rates, and potential surface water and groundwater contamination. There was adequate information to determine the significance of potential impacts to soil, water and vegetation. If CES applies to the Montana DNRC for a land-use license, the project specifications listed by the commenter may be imposed by DNRC at that time.

PIPELINE STREAM CROSSING CONCERNS

49. The conclusion that DEQ does not have the legal authority to require MPC to use directional drilling and dry crossings instead of open-trench wet crossings is incorrect. The wet crossings MPC has proposed would require DEQ permits under MCA § 75-5-318, granting short-term exemptions from state numeric water quality standards for turbidity. Section 75-5-318(2) does not authorize DEQ to grant such an exemption unless it determines "that there are no reasonable alternatives to achieve the numeric [turbidity] standard." Here, the analysis in DEIS conclusively establishes that there *are* reasonable alternatives – directional drilling and other "dry" methods – that will not require turbidity waivers. Therefore, DEQ not only has the authority to require these methods to be used, but in fact *must* require them to be used, and cannot grant turbidity waivers. The DEIS should be revised accordingly.

Response:

Page 5-1 of the DEIS will be corrected to state that DEQ is required under Section 75-5-318(2), MCA to impose reasonable alternatives that would preclude the need for a short-term narrative (turbidity) standard. Accordingly, DEQ will require directional drilling or dry crossings as reasonable alternatives to any 318 authorization required for this project.

50. Since the trench crossings in the proposed action would require section 318 short-term turbidity permits in order to go forward, it is not clear why those permits are not being handled in conjunction with this EIS. In the case of several stream crossings (e.g., the Dearborn, Flat Creek, the Sun River) the information in the DEIS establishes that granting turbidity waivers would have significant effects on fishery resources – meaning that, if MPC applied for such permits, an EIS would be required. Does DEQ intend to prepare separate EIS's for the 318 permits if and when CES submits applications for them in the future? If not, proposed permits should be included as part of this draft EIS and submitted for public comment. As stated above, it does not appear DEQ has the legal authority to grant such permits, since alternatives exist that would meet the normal turbidity standards.

Response:

The Section 318 applications for the proposed project have been submitted to the DEQ but have not been acted upon. Given that DEQ is required by § 75-5-318(2), MCA, to impose reasonable alternatives that would preclude the need for short-term turbidity standards, DEQ will require directional drilling or dry crossings for each Section 318 application. Imposing these alternatives would mitigate any significant impacts associated with pipeline construction so that separate EIS will not be required.

51. It is clear that "wet trench" crossings, as proposed, will negatively affect trout migrations, spawning and recruitment and have a high likelihood of spreading whirling disease which could decimate the vibrant and valuable $20 million per year Missouri River trout fishery.

It is also clear that mitigating alternatives to the "wet trench" crossings as proposed in the DEIS (pages 4-84, 85, & 86), if adopted, could reduce the impacts to "no impact" or "minimally adverse impact." We therefore request that the mitigating alternatives for pipeline crossings be required as a condition of the permit(s).

Response: See responses to Comments 49 and 50.

52. The proposed action includes pipeline stream crossings, including in some fish-bearing streams. MPC proposes to construct the pipeline using the trench crossing method at all stream crossings except Silver Bow Creek and the Teton River. Because trench crossing will result in adverse impacts to fish-bearing streams due to increased sedimentation, FWP recommends that at a minimum, the proposed alternative of dry or trenchless crossing be employed at Jones Creek, Muddy Creek, Spring Creek, Big Coulee Creek, Flat Creek, and the Backwater of the Teton River.

Response: See response to Comments 49 and 50.

53. Because of their important fishery value, and threat of whirling disease contamination, FWP recommends that trenchless crossing be employed at crossings of the Sun and Dearborn River. As noted in the DEIS (Page 3-27), the Sun and especially the Dearborn are significant fisheries, and their fisheries values contribute significantly to local and state economies. This fact should not be overlooked when comparing costs. FWP agrees with the DEIS that the directional drilling of the Dearborn (DEIS at Page 4-78) and the Sun (DEIS at Page 4-83) is feasible, and this least-damaging method should be used.

Response: See response to Comments 49 and 50.

54. The DEIS states "The following mitigation measures cannot be required by DEQ without a request from the project sponsor (MPC) that they be placed in a permit" and "Since the following mitigation measures address choice on the part of the project sponsors (MPC), it is possible that none of the proposed mitigation measures will be selected (p 2-58)" **In other words the Montana Power Company, not the citizens of the state, will decide the fate of the Missouri fishery**. Montana Trout Unlimited strongly disagrees with this conclusion.

There are at least two Montana laws, which authorize the state to require mitigation and deny or condition the respective permits to protect the fisheries from the significant adverse impacts of this proposed pipeline. If needed, we reserve the ability to complete a more extensive legal research and subsequently use that research.

- **Section 75-5-318, MCA; Short-term water quality standards for turbidity**. This project has applied for a short-term water quality standard as a result of it admittedly not being able to meet the numeric standard adopted by the Board of Environmental Quality. The law requires the department to "review the application and determine whether there are reasonable alternatives that preclude the need for a narrative standard." Further, that the department **can only** authorize the use of a short-term water quality standard if there are no reasonable alternatives to achieving the numeric standard. The DEIS, and thus the department, has defined and delineated the reasonable alternative to short term water quality standards in its mitigating alternative for fisheries impacts. Clearly the authority exists for DEQ to not allow a short-term water quality violation and to require trenchless crossing. Arguably because the reasonable alternative has been defined by DEQ it would be a violation of the law not to require it and condition the permit accordingly. It is legally incorrect to leave the decision to mitigate to the project sponsor.

The DEIS is seriously deficient in investigating and proposing this alternative for required mitigation.

- **Section 75-7-102 and 112 MCA; The Natural Streambed and Land Preservation Act.** This law states "It is the policy of the state of Montana that its natural rivers and streams and the lands and property immediately adjacent to them…are to be protected and preserved to be available in their natural or existing state…"

  Further, this law states that the supervisors of conservation districts "may not approve or modify a proposed project unless the supervisors determine that the purpose of the project will be accomplished by reasonable means". The law further requires the supervisors to consider "the effect on fish and aquatic habitat" in determining whether the project is reasonable. This includes whirling disease, fish migrations, spawning and recruitment. The DEIS finding of significant adverse impact on the wild trout fishery precludes the supervisors from determining "the project will be accomplished by reasonable means" as proposed. The DEIS thus mandates that the supervisors of each affected conservation district either condition the permit to remove the significant adverse fishery impact or deny the permit. It is clearly not left to the project sponsor's "choice" as stated in the DEIS.

  It is DEQ's legal responsibility to both inform the affected conservation districts that the DEIS has concluded that the proposed project will not be accomplished by reasonable means and that reasonable mitigating alternatives exist within the DEIS. It is then the legal responsibility of the supervisors to act within their delineated authority and either condition the permit sufficiently to remove the significant adverse impact to the fishery resource or deny the permit.

Again the DEIS is seriously deficient in investigating and proposing this alternative for required mitigation!

Response:

See response to Comment 49. The Natural Streambed and Land Preservation Act is not under DEQ's authority. The Conservation Districts have had the opportunity to review the Draft EIS.

55. We see it as imperative to do trenchless crossings on the Dearborn and Sun Rivers as well as Silver (not to be confused with Silver Bow), Flat and Spring Creeks together with dry crossings on Big Coulee and Muddy creek and the backwater of the Teton River.

Response:

Since the DEIS identified directional drilling or other "dry" methods of crossing as a reasonable alternative to wet trenching, DEQ is statutorily required to impose one of these alternatives under § 75-5-318(2), MCA, for the crossings on the Dearborn and Sun Rivers, Silver Creek, Flat Creek and Spring Creek, Big Coulee, Muddy Creek, and the backwater of the Teton River.

56. Both dry and wet trench crossings have adverse impacts on water quality and fish migration. When a reasonable alternative is feasible DEQ should require the use of

that alternative. Trenchless crossings have very little, if any, impact on water quality and fish migration. As such they should become the preferred method for mitigating **all** impacts to trout fishery resources.

Response: See response to Comment 55.

57. The description of DEQ's section 318 authority in Appendix A is incomplete because it omits the statutory language that requires DEQ to make a determination "that the numeric standard for turbidity … cannot be achieved during the term of the activity and that there are no reasonable alternatives to achieve the numeric standard" before it can grant a short-term narrative standard. MCA 75-5-318(2). This is one of the most important provisions in the section, and its absence from the DEIS is conspicuous. Appendix A should be revised accordingly.

Response:

Appendix A descriptions of applicable permitting and licensing actions required for project implementation is intended to serve only as a summary. The full text of statutory requirements for each permitting action can be found in the Montana Code Annotated referenced for each action (in this case, 75-5-318 MCA). The Final EIS has been amended to expand the summary description of DEQ's 318 permitting authority in Appendix A to include the reasonable alternatives provision.

58. To minimize the potential for spread of whirling disease, the whirling disease mitigation measures should be required, and should apply to any equipment that has been in any body of water, not just in known whirling disease contaminated waters. Hand tools (e.g., shovels), boots, and other equipment used in waters in the project area should be sterilized using a bleach solution prior to use in another water. Heavy equipment should be thoroughly stream cleaned, with all mud and sediment removed, prior to entering a different water body.

Response:

DEQ's preferred alternative includes the requirement that equipment cleaning for all in-stream construction must meet FWP standards for prevention of whirling disease (Section 2.2.2.2 of the EIS).

59. Whirling disease mitigation as proposed in the DEIS must be adopted and in addition much include the cleaning of all equipment after use in each stream (regardless of whether the stream has been determined to have whirling disease spores or tams). Not all streams have been tested and the disease is advancing rapidly, so data revealing no whirling disease presence is potentially inaccurate. This project should only proceed with the assumption that all waters harbor whirling disease parasites.

Response: See response to Comment 58.

60. In locations where removal of riparian vegetation (willows, alders, etc.) is necessary to complete the crossings, these trees and shrubs should be removed in clumps with the roots intact and replanted when the crossing is complete. Native vegetation should be replanted at all disturbed sites.

Response:

Thank you for your suggestion. DEQ will determine the appropriate 318 authorization conditions to stabilize bank disturbance at crossing sites.

61. Fluvial Arctic grayling, rainbow trout, and other fish species do occur in the Sunny Slope canal and Spring Valley canal systems. Crossing of those should be done when they are dewatered to avoid additional impacts to fisheries in those canal systems.

Response:

DEQ agrees that these canals are best crossed when they are dry. If they are wet at the time crossing is proposed they would be considered state waters and 318 authorizations would be needed. DEQ would then determine the need for conditions, such as appropriate crossing methods.

RECREATION AND SOCIOECONOMIC CONCERNS

62. The DEIS discusses potential aesthetic impacts to users in comparatively distant locations such as downtown Butte and the Continental Divide Trail, but neglects to analyze, or even mention, impacts to users on the major recreational facility being developed directly adjacent to the site: the Butte-Silver Bow Greenway. This is unacceptable. The state will be investing almost $20 million to develop this recreational corridor along Silver Bow Creek, which is a major feature of local plans to attract visitors to the area and develop the local tourism economy. Potential aesthetic impacts from this facility could have a significant effect on the experience of trail users, and therefore significantly affect the Greenway's ability to establish itself as a tourist destination. This would not only cause the loss of economic and quality of life benefits the Greenway is intended to provide to the local economy, but would also undermine the value of the state's substantial investment. These impacts must be analyzed and disclosed.

Response:

This adverse impact on the Butte-Silver Bow Greenway has been included in both the recreation and the socio-economics section, including some of the monetary figures mentioned by the commentor. Because the proposed plant would be consistent with the industrial character of the area, the effect from the plant on the Greenway is considered adverse and less than significant on both recreation and socioeconomics.

Page 4-5, Section 4.2.1.1.2 (Visual Resources) of the Draft EIS has been revised to clarify that future viewers such as recreationists using the Butte-Silver Bow Greenway, as well as current viewers, would see the generation facility and vapor plume. The long-term presence of the generation facility and vapor plume would not be out of context with the current industrial uses and existing setting. Aesthetic and recreation impacts to current and future viewers would be adverse but less than significant.

63. The brief description of the Greenway in section 3.2.1.5 of the DEIS – which is the sole mention of the Greenway in the document – is wholly inadequate (DEIS p. 3-11). A more complete description should be included. We suggest the following text:

Upon completion of remedial actions, the entire 26-mile corridor along Silver Bow Creek is planned to be managed as a passive recreational corridor, natural area, and major national tourist destination by Butte-Silver Bow's Greenway Service District ("GSD"). According to GSD, the Greenway is intended to serve the following principles:

- The greenway should serve multiple users.
- The greenway should help to boost the economy of the region.
- It should be a destination greenway of national significance.
- The greenway should serve the needs of both local and area visitors.
- The greenway should have a natural character and reflect the heritage of the area it serves.

Major features of the Greenway include an extensive trail system, native plantings to provide wildlife habitat, natural stream channel restoration, interpretative exhibits, and trailhead parking and restroom facilities designed to handle large numbers of visitors. Design and construction of the Greenway are proceeding in conjunction with the remediation of the Silver Bow Creek area pursuant to the EPA's record of decision for the site. Construction has already been completed on the uppermost reaches of the creek. To date, the state has invested approximately $2 million in the Greenway. The total cost for all 26 miles of Greenway is estimated at $18.5 million.

Section 3.2.1.1 of the DEIS, "Existing Land Use Plans," should describe GSD's plans for the Greenway, which is well within the identified study area (5-mile radius of the plant and 10-mile radius of the plume). In addition, the description of the Butte-Silver Bow Master Plan should include those sections that describe the Greenway. The Greenway should also be discussed in sections 3.2.1.3.6 (Current Land Use Characteristics and Trends), and 3.2.1.4 (Visual Character).

Response:

Section 3.2.1.5, Page 3-11, of the Draft EIS has been revised to add the following:

The Butte-Silver Bow Greenway, including the 3-mile segment that is located adjacent to the Technology Park and proposed generation facility, will include an extensive trail system, native planting for wildlife habitat, natural stream channel restoration, interpretative exhibits, and trailhead parking and restroom facilities for visitors.

64. Sections 4.2.1.2 (Visual Resources) and 4.2.1.4 (Recreation) of the DEIS should describe how the proposed plant, and particularly the large vapor plume and strobe lights, will affect the user experience of recreationists on the Greenway. Views of a large industrial facility would obviously conflict to some degree with the natural setting GSD intends to provide. The DEIS does not calculate the average or maximum dimensions of the vapor plume, but it should do so. If the plume would make the industrial activity at Rocker apparent to recreational users over widespread portions of the Silver Bow corridor where it is not now visible, it should be considered a significant impact. The strobe lights have a similar potential for impacts. Most species of wildlife tend to be most active in the early morning and late evenings, and these are by far the most favorable times for people to view them. The strobe lights could seriously detract from the quality of this experience, and make tourists less

likely to regard the Greenway as an attractive destination. This could be a significant impact not only to recreation, but also to the economic benefits the Greenway is intended to provide (see comments on socioeconomics, below).

Response:

Visibility of the vapor plume was calculated using cooling tower height, exhaust stack height, and direction and extent of drift based on the range of meteorological conditions for this site (CES 2001a). These conditions included varying wind speed, atmospheric stability, temperature, and humidity. Both the average and maximum dispersion patterns were modeled. Average distance before plume dispersion would be approximately 100 meters. Maximum distance before plume dispersion would be approximately 5 kilometers. A wind rose for the former Rhone-Poulenc facility was used to model the dispersion pattern.

The addition of the generation facility to the existing industrial setting approximately 2 miles south of Ramsay and the proposed greenway is not expected to make the commercial development at Rocker more apparent to future users of the trail system.

The Draft EIS (Page 4-5, Section 4.2.1.1.3 Recreation) has been revised to add the following:

> **The addition of the generation plant and associated vapor plume to the existing setting surrounding the Technology Park could detract from the recreational experience of some current and future viewers. The generation plant would not be out of character with past, present, and future uses in the Park. Aeronautical safety marking that could be added to the exhaust stacks would likely be visible from portions of the proposed greenway. The visibility of safety marking for the generation plant would be an adverse but less than significant impact, and would be in addition to other existing aeronautical safety marking that is adjacent to the proposed greenway.**

65. The Butte-Silver Bow Greenway represents a major economic development project intended to attract tourist dollars to the local economy, and to make the Butte-Anaconda area a more attractive place for businesses and worker to relocate. Section 4.13.1.1 of the DEIS should analyze the potential negative impacts the CES plant might have on these benefits. GSD estimates these benefits as follows:

> [T]he community has high expectations for the Greenway, including the generation of regional economic benefits. This is not an unrealistic expectation given the experiences of other communities that have established greenway systems. For example, the Rails-to-Trails Conservancy estimates that the average greenway system created through a rails-to-trails conversion annually generates $1.5 million to the local economy. Economic benefits reflected in this figure range from food and lodging to equipment rental and increased patronage of a wide variety of services and businesses. The Butte-Anaconda area is well positioned to achieve economic benefits of this magnitude or greater. (2000 NRD Grant Application p.4)

The proposed CES plant has the potential to significantly affect these anticipated benefits. If the Greenway is going to be promoted as a national tourist destination, visitors are going to expect a high-quality aesthetic experience. If the plant's vapor plume and strobe lights are visible from the Greenway, this will interfere with that experience. Even if they are not, the mere proximity of the Greenway to a major industrial generating facility could make it much more difficult to establish a

reputation as a national tourist destination. The potential loss of tourist revenue should be analyzed and included in this section of the DEIS.

Response:

The EIS has been revised to include these potential economic adverse effects. Impacts are considered adverse, but not significant. Text in Section 4.13.1.1 (Pages 4-120 and 4-121 of the Draft EIS) have been revised to provide the following discussion.

> **The main cost to local society from the plant would be those burdens borne by local residents that would not be compensated for by CES. The most important of these costs under the Proposed action is expected environmental damage not mitigated by the plant. This damage would be borne as a cost by those local residents who use and depend on and enjoy those natural resources/amenities. Such natural resources affected by the proposed plant would include the fishery in Warm Springs Creek (affected by de-watering) and the proposed Butte Silver-Bow Greenway (affected by the air emissions plume). Mitigation measures have been recommended for Warm Springs Creek that would minimize damage, but actions under the proposed action would still have a significant adverse impact on the fishery there and therefore on the economic use value of that fishery (through fish depletion-see Fisheries section 4.9.1.1.2). This adverse fishery impact, while potentially important to local residents, would not be economically significant to Silver-Bow County as a whole ("local society") as it would not affect any economic indicator by 5% or more.**
>
> **The effects from the plant on the proposed $20 million Butte-Silver Bow Greenway, which is slated to be a national tourist destination, would be adverse from the visible emissions plume and not significant, since the local area already has an industrial character to it. This could have an adverse effect on tourist revenue going into the local economy. Because the area is already of an industrial character, these effects are not expected to be significantly adverse or significantly affect visitor days. Air emissions from the plant are not expected to cause any additional health costs locally, since they are projected to meet National Ambient Air Quality Standards designed to protect health. There would be some increases in arsenic in Sheep Gulch from the plant, which is not considered significant (see section 4.5-Water Resource). Despite these adverse effects, it is important to note that CES has proposed mitigation for land, visual, vegetative and water resources under their proposed action. Recommended mitigation alternatives beyond those under the proposed action would in some cases significantly reduce the identified adverse impacts and thus the economic costs from the plant that society would have to bear.**

66. Section 4.13.1.1 of the DEIS claims to analyze the power plant's benefits to "society," which it defines as "Silver Bow County and downstream water users from the proposed generation plant (some of whom live in Deer Lodge County). It then asserts that "The main societal benefit of the Silver bow Plant would be the electricity generated." But as the DEIS points out on page 121, the vast majority of the electricity generated (roughly 80%) would be sold to out-of-state users. Therefore, the benefits to local "society," as defined in the DEIS, are vastly overstated.

To the extent the plant's benefits to society are considered to be the value of the revenue from electrical generation to local government and the local economy – as opposed to the actual electricity itself —, the DESI already accounts for them elsewhere by estimating tax revenues, wages, and salaries. Therefore, second paragraph of section 4.13.1.1 should be deleted.

Response:

This comment is correct and very useful in improving the economics discussion. The EIS has been revised in Section 4.13.1.1 to separate local benefits/costs and national-level benefits/costs. In this vein, the electricity generated does NOT benefit local society as the draft might have implied (so you are correct in your comment). This is made clear in the revised text. The EIS has been revised in section, 4.13.1.1 to address the benefits from 'additional electricity' in a discussion on national-level benefits and costs (for which it is emphasized that the analysis is mainly concerned with local economics). None of these electricity benefits are included in the discussion of "local society" in Montana.

67. The finding in section 4.13.1.1 that the plant's benefits will exceed its costs is based on the further assumption that the plant will be required to bear the cost of all its environmental impacts, rather than having these costs externalized and borne by society. Other sections of the DEIS have already shown this assumption to be false, by concluding that the proposed action will have significant environmental impacts that would not be mitigated. For example, dewatering in Warm Springs Creek, and the wet crossings of the Dearborn and Flat Creek would significantly affect the fishery of Warm Springs Creek, and the wet crossings of the Dearborn and Flat Creek would significantly impact the multimillion-dollar fishery of the Missouri River.

Response:

The DEIS states that there would be environmental costs paid for by society, but did not specifically address Warm Springs Creek. Revisions to the Draft EIS provides a discussion of environmental costs that includes Warm Springs Creek and the Butte-Silver Bow Greenway under local costs in Section 4.13. The adverse socioeconomic effects from the proposed action on Warm Springs Creek are considered insignificant to local society (which includes Silver Bow County and parts of Deer Lodge County). The reason why the adverse effects are considered not significant is because harm to the fishery would not change any social or economic variable in "local society" by 5 percent or more. However, it is noted that damage to the fishery would be important to local residents. The Dearborn cost to fisheries is included under the pipeline portion of the analysis and is considered adverse and significant under the Proposed Action (because it attacts many more anglers and because the local economy on that portion of the river relies much more on that particular fishery).

Because estimating monetary costs of environmental resources is beyond the scope of this EIS given time and monetary constraints, professional judgement is used to estimate whether these environmental costs would be more than or less than the economic benefits from the project. Locally, it is estimated that benefits would exceed costs (most costs being environmental). This assumes that environmental damage to Warm Springs Creek and other waterbodies and any air pollution would be less than the $32.25 million in benefits over the life of the plant.

68. It makes no sense to minimize the cost of building the pipeline at the expense of the wild trout fishery and the thousands of Montana anglers who enjoy that wild trout fishery. Especially when you realize that much of the power slated for generation at the Silver bow facility is to be exported from Montana. It is poor policy and foolish economics to allow non-resident electric consumers to benefit from lower rates (due to lower construction costs) at the expense of a world-class trout fishery in Montana and the jobs and income associated with it? Requiring the mitigating alternatives not only makes good environmental sense, it make good economic sense as well.

Response:

The socioeconomics section under 4.13.2 Effects of the Mitigation Alternatives agrees with the comment.

AIR QUALITY CONCERNS

69. The EIS describes an increase in airborne salt from the cooling towers which will occur on the School Trust Lands. It fails to describe what impact this would have on vegetation and any potential impacts which would occur to livestock which graze on this vegetation. Impacts to grazing livestock could have economic impacts to the School Trust since this land is leased to Ueland Ranches Inc. for domestic livestock use. We would like these impacts to receive further analysis.

Response:

The salt deposition impacts contained in Section 4.10.1.2.5 of the Draft EIS were overestimated because there is a new design of the cooling towers. The impacts have been reduced to half of those contained in the DEIS. More information is provided in revisions to Section 4.10.1.2.5, Page 4-96 of the Draft EIS. The cooling towers were redesigned to limit the impacts to the surrounding area including the School Trust Lands. The impacts have been remodeled and the analysis shows a reduced area of impact and level of impact on the School Trust Lands. The impact will be 1-3 lb/acre/year on most of the affected area with a very small area being impacted at a rate of 3-10 lb/acre/year.

At this level of salt deposition, impacts to the vegetation would be only minimal, if even measurable. Airborne salt would potentially impact vegetation from direct contact on the leaves and would be removed by precipitation. Grazing livestock would not ingest a significantly higher amount of salts from eating this vegetation. No long-term impacts would be expected to the underlying soils because much higher levels of salts are typically added to agricultural crops and pastures through the use of chemical fertilizers and irrigation water amendments.

70. Missing from the analysis, however, is any discussion of the significance of global climate change itself. Nothing is mentioned about the profound negative impacts projected for human health, the environment, and the socio-economic well-being of the world's nations. Neither is there any analysis of the significance of the Silver Bow Generation Project's emissions figures. The Draft EIS lists the impact as 'Adverse' but not 'Significant' but contains no explanation for that decision.

Response:

The potential greenhouse gas emissions have been estimated according to the international emission inventory guidelines. The emissions calculated are contained in Table 4-42 of the DEIS and include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), carbon monoxide (CO), nitrogen oxides (NO_x), sulfur dioxide (SO_2) and volatile organic compounds (VOC) estimates. The State of Montana and the Environmental Protection Agency (EPA) have established ambient air quality standards for SO_2, NO_x, and CO. CES modeled the potential emissions of these pollutants and demonstrated compliance with the ambient air quality standards. These pollutants will be increased because of the operation of the power plant but will not have a significant impact based on the modeling demonstration.

As for the remaining pollutants, CO_2, CH_4, VOC, and N_2O, no ambient air quality standards have been established to compare the potential emissions to. However, the Department has determined that based on the emission modeling completed on the criteria pollutants and the dispersion characteristics of the facility and the area (wind speed, wind direction, atmospheric stability, stack temperature, stack height, and emissions), the impacts from the other pollutants

would be minimized. As a comparison, the impacts from other common sources of VOC emissions (such as fueling your vehicle) would be greater to human health because of the concentration at the point of exposure. Therefore, the Department has determined these impacts to be adverse but not significant.

Whether greenhouse gas emissions cause global climate change is a topic of international scientific debate and is beyond the scope of this EIS. Furthermore, the amount of greenhouse gas emitted by the Continental facility will be miniscule compared to that released nationally and internationally.

71. MEIC would like to see Appendix K expanded to indicate the Project's total greenhouse gas emissions, including the contribution from the pipeline portion of the project as calculated on pages 4-102 through 4-108. The final figures should include the possibility of greenhouse gas emissions from pipeline ruptures. A 'Totals' row should be added to Table K-2 (which is also Table 4-43), as well as a 'Tons of CO2 Equivalent' column (for easy comparison to the CO2 figure in the first column of Tables K-1, which is also Table 4-42).

Response:

The greenhouse gas emissions were determined for each leg of the project. However, the Department does not feel it is necessary to quantify the emissions from pipeline ruptures because ruptures occur very infrequently and it would be speculative to try to quantify the amount and severity of a rupture. In addition, for the most part the pipeline will be new and it is very unlikely there will be ruptures from pipeline failure. The emissions would be considered negligible.

The Department has reviewed Table 4-42 and because of size constraints and having the table in a readable font no columns were added to this table. The information should be easily comparable because the tables, 4-42 and 4-43, follow one another. However a total tons per year column was added to Table 4-43, Page 4-101 of the Draft EIS.

72. In addition to the 2,378,000 tons of CO2 equivalent that will be emitted from the plant each year, the Silver Bow Generation Project is projected to produce sizable quantities of numerous different air pollutants. The Emission Inventory table in the air quality permit analysis for the generation plant (which appears in Appendix I) indicates the following annual emission rates in tons per year:

PM	235		
PM-10		227	
NOx		168	
CO	732		
VOC		92.4	*NOTE: arithmetic error, this number should be 94.2
SOx		10.7	

Table 4-30 on page 4-89 also indicates:

NH4	272

Finally, as calculated above, information contained in Table 4-43 reveals:

CO2 equiv.	2,378,000

MEIC notes that several of these levels are not only absolutely, but also proportionately far greater than the corresponding levels for NorthWestern's 240 megawatt Montana First Megawatts plant:

PM	87.6	
PM-10		87.6
NOx		245
CO	236.6	
VOC		17.6
SOx		5.6

While the nameplate capacity of the Silver Bow Generation Project would be 2.1 times that of First Megawatts plant, the production of PM would be 2.7 times as high, PM-10 would be 2.6 times as high, CO would be 3.1 times as high, and VOC would be 5.4 times as high. MEIC would like to know how much of this difference is attributable to differences in proposed operating schedules and how much is attributable to inferior pollution controls at the Silver Bow plant. It would be helpful if the Final EIS would include a table indicating the amount of these pollutants produced per megawatt-hour of energy.

Response:

The arithmetic error has been noted and corrected. The NorthWestern First Megawatt facility and the CES facility are two different facilities. The similarity would be that they both produce electricity using natural gas. However, they are differently operated facilities. The CES facility is a combine cycle combustion turbine electric generating facility. The NorthWestern facility is a single cycle facility. The determinations that were made for both facilities regarding the requirements for air pollution control equipment (Best Available Control Technology determination) were consistently applied. The Department has included a table that shows the emissions in terms of megawatt-hour. However, the Department would like to make one clarification on the comparison of the CES and the NorthWestern facilities. The NorthWestern facility is permitted as a 160 MW facility not a 240 MW facility. The Department does view these sources as separate and distinct, but for discussion purposes the emissions per megawatt-hour for each of the facilities have been listed below.

Source	PM (MW-hr)	PM-10 (MW-hr)	NOx (MW-hr)	CO (MW-hr)	VOC (MW-hr)	SOx (MW-hr)
CES Facility Wide	**0.00004**	**0.00004**	**0.00003**	**0.0001**	**0.00002**	**0.0000018**
NorthWestern Facility Wide	**0.00004**	**0.00004**	**0.0001**	**0.0001**	**0.00001**	**0.0000023**

As this table demonstrates, the emissions per megawatt hour are very similar between these two facilities.

73. MEIC also objects to the EIS's failure to incorporate Butte PM monitoring data into the analysis (p. 3-105).

Response:

The CES facility is proposed to be located approximately 6 miles west of Butte, Montana. The predominant winds in this area are from the Northwest. Thus, the majority of the time CES would have little influence on the PM10 nonattainment area. Furthermore, the facility demonstrated in its air quality permit application through air dispersion modeling using the ISC3 model that it would not significantly impact the nonattainment area. Using three years of onsite meteorological data (1994-1996) collected at the Rhodia facility, PM10 emissions were modeled by placing receptors on the nonattainment boundary and within the nonattainment area. The modeling results showed that CES would not significantly impact the PM10 nonattainment area. The

modeled PM10 concentrations for the 24-hour and annual averaging periods were 2.4 ug/m3 and 0.3 ug/m3 respectively. The PM10 modeling significance levels are 5 ug/m3 for the 24-hour and 1 ug/m3 for the annual averaging periods.

74. DEQ should note that there is presumably a typographical error in the following sentence on page 4-100: "Without stationary air masses, the constituents of photochemical smog would [not?] remain in the area long enough to build up or react."

Response: The correction has been made.

75. The first comment pertains to Table S-1 Summary of Impact Severity for the Proposed Action and the Mitigation Alternative. The first section under Infrastructure lists "Pipeline Failure" and its impact "Impediment to the through mobility of a roadway" as adverse but not significant. The materials submitted during the drafting of the EIS listed this impact as significant.

A pipeline failure on I-90 is significant. Commercial trucks with triple trailers are not permitted to travel off the Interstate system. Rerouting the vehicles would require sending them hundreds of miles out of their way through adjacent states on the interstate system or directing them onto highways where their travel could pose a risk to the traveling public. This item should be a stand-alone impact in Table S-1. Please see the attachment of the material submitted during the drafting process. As to the remaining road system, vehicles using these roads can more easily be rerouted and the comment in Table S-1 is appropriate.

Response:

Table S-1 and Table 5-1 have been changed as requested.

Infrastructure			
Pipeline failure	**Especially for pipeline failures affecting I-90 (authorized for semi triple trailers): roadway closures; damage to rights of way; contamination of right-of-way material; detour of traffic and corresponding damage to detour roadway; loss of goods and services to public**	**S**	**A**

The bottom of Page 2-63 of the Draft EIS has been revised to add the following text:

Section 2.2.2.6 Infrastructure

Develop an Emergency Response Plan which includes but is not limited to: Notification system for local emergency services, et al; rerouting traffic; detour route for commercial trucks (interstate route only); actions to minimize affected area; repair of the affected roadway and right-of-way; repair of the detour route(s).

76. The second comment is directed toward section 2.1.2.3 Silver City Loop. The pipeline will cross Highway 279. Each of the sections discussing the other loops mention the roadways the pipeline will cross.

Response:

A sentence has been added to Section 2.1.2.3: This 5.2-mile-long loop extends south from a new compressor station proposed at Main Line #4 to Valve #12 located in the NW ¼ of Section 25 T. 11 N R. 5 W where the loop terminates. The pipeline would cross Highway 279. The new 20" pipeline would be located within existing corridor and adjacent to existing pipelines for the entire distance

MEPA PROCEDURAL CONCERNS

77. One of the greatest shortcomings of the Draft EIS is its failure to analyze the 'up-stream' environmental impacts associated with acquiring such enormous quantities of natural gas. Some of North America's most prized wild areas (such as Montana's majestic Rocky Mountain Front) are continually threatened by the prospect of increased oil and gas exploration and drilling. The Final EIS should acknowledge and analyze the environmental and socioeconomic impacts associated with increased natural gas production.

Response:

Continental has indicated that the source of the gas for the plant has not been selected but that the majority of the gas will probably come from Alberta. This is consistent with planned upgrade of the natural gas pipeline. Extraction of gas from the Rocky Mountain Front would require development of new fields and pipelines, which would be largely dependent on economic factors external to the Continental facility. Furthermore, much National Forest land along the Rocky Mountain Front has been withdrawn from oil and gas leasing or is under a moratorium. Given these factors, any projections of impacts or development on the Rocky Mountain Front would be based on speculation.

78. The Draft EIS states, "The Project would provide additional infrastructure and electricity to meet increased demand for power within the western United States, specifically those states in the Western System Coordinating Council (WSCC)" but provides no evidence for this contention (p. 1-2). Similarly, it states without support that the expected benefit of the Project would be the provision of a new source of electricity in a region where energy supplies have not kept up with demand. While supplies in the WSCC did appear tight twelve months ago, the Draft EIS ignores the rapid expansion of generation resources and the extremely successful conservation efforts that have taken place since that time in California and the rest of the western grid to alleviate that pressure. In a presentation to the Environmental Quality Council Energy Subcommittee on December 10,2001, John Hines of the Northwest Power Planning Council delivered a presentation which stated that Pacific Northwest load reductions over last year amounted to 4,000 megawatts (including industrial curtailments, demand response, and conservation initiatives). In addition, 2,180 megawatts of new thermal generation came online in the Pacific Northwest (1,650 permanent) and 7,000 additional megawatts became available in California, including a load reduction in California of at least 4%. Finally, hydro conditions are considerably better at 99.2% of average compared with 55% of average a year ago. Mr. Hines said that 1,250 megawatts of new generation would come online in the

Pacific Northwest in 2002.

Similarly, the California Energy Commission's website reports that there are 30,754 megawatts of new capacity recently completed or under construction in the WSCC, with 6,703 of those megawatts in the Pacific Northwest. The NW Energy Coalition's website shows that 4,026 of the 21,000 megawatts of new fossil-fuel based power generation proposed for the four Pacific Northwest states have either already come on-line or are expected to come on-line in 2002 or 2003, i.e. prior to Continental Energy's forecast startup date of Fall 2004 (p. 2-28). Consistent with these developments, the Mid-Columbia index for on-peak firm power currently indicates prices averaging $20 or less per megawatt-hour, down from more than ten times as much a year ago. In short, these figures beg the question, "is this power plant needed?" Certainly it is not needed by Montana's electricity consumers.

Response:

Until the recent electricity crisis in California, few new generating plants had been built or proposed in the western United States. With the advent of open access transmission since FERC Order 888, most new generating projects have been proposed by independent power producers rather than utilities, and they are motivated by profit, not by a plan for matching generation and load. The proposed plant is one of many that have emerged, with most new proposals having been evoked by the high prices of last year. Not all of the plants in the CEC website will be built, and the existence of the large number of plants proposed and in the permitting process cannot demonstrate that the Continental plant will not be built.

The Pacific Northwest load reductions referred to were a response to the high prices and demand buyback programs during last year's crisis. They are not relevant to assessing future load growth under normal price conditions.

The decision to proceed with the plant is based upon the project developer's assessment of its likely profitability. The effect on profitability of hydro conditions and the number of new plants that will be built elsewhere in the region are issues for consideration by the project developer. There is no requirement in MEPA of a demonstration of need for the facility, and the need demonstration formerly required by MFSA no longer applies to generating plants.

New language has been added to Section 1.2: replace the third paragraph with the following:

> **The expected benefit of the Project would be the provision of a new source of supply in the Western electricity market, which has demonstrated the capability of dramatic price increases during periods of scarcity. The Project's power output would be used by electricity customers in the Western market. The Project would indirectly benefit all customers in the Western Interconnection by enhancing regional reserves and increasing the level of generation reliability in the West and in Montana. The Project will increase the degree of competition in Montana and in the Western power market, by competing with other independent generators and power marketers for supplying wholesale and retail customers and would exert downward pressure on the price of electricity.**

79. MEIC finds that the Draft EIS is deficient in its analysis of clean energy alternatives. The EIS lists the following six alternatives to the generation plant that were considered but eliminated from detailed study: alternative water supplies, wastewater discharge methods, alternative water use methods, alternative sources of energy, alternative waste heat management, and alternative sources of fuel (p. 2-65). Yet, in the ensuing sections 2.4.1.1 through 2.4.1.5 only five of these six alternatives are discussed. What's missing is the discussion of why 'alternative sources of energy' was dismissed as a candidate for detailed analysis. Based upon the selection criteria listed in section 2.0, MEIC can see no reason why this alternative might have been rejected for analysis:

2.0 selection criteria for detailed analysis

- Actions that meet the purpose of the Proposed Action
- Facility locations that minimize environmental impacts
- Facility locations practicable for the purpose of delivering natural gas or generating electricity
- Adequate water supply to meet generation plant process needs
- Actions that do not conflict with local resource management plans
- Actions that are not feasible

Response:

The rules that implement MEPA, define an alternative as an alternate approach that would appreciably accomplish the same objectives or results as the proposed action (ARM 17.4.603(2)(a)(i)). An agency is required to consider only alternatives that are realistic, technologically available, and that represent a course of action that bears a logical relationship to the proposal being evaluated (ARM 17.4.603(2)(b)).

The purpose of the proposed action is to construct and operate a gas-fired combined cycle generation plant to provide a reliable source of electricity. Alternative energy sources, such as solar or wind energy, would not appreciably accomplish these objectives. The alternatives that were considered but eliminated from detailed study bore a logical relationship to the proposal. For example, since the generation plant would be water cooled, it was logical to consider alternative sources of cooling water and different methods of handling wastewater. An alternative energy source, requiring an entirely different technology and facilities, would not have a logical relationship to a gas-fired power plant.

80. In general, MEIC feels that DEQ's suggestions for improving the generating plant portion of the project are more cursory than those for improving the pipeline project, and requests a greater degree of scrutiny in determining how the generating plant's impacts can be further mitigated.

Response:

In general, DEQ provided the same level of scrutiny to both the generation plant and pipeline impacts. However, different resources had different issues of concern for these two portions of the Silver Bow Project. For example, resource issues such as water supply for the generation plant and recreation for the pipeline upgrade were described in more detail for their respective study areas of concern.

81. MEIC feels it would be helpful to citizens to have a full understanding of the reasons why all of these various pollutants are of concern to both human health and the

environment. The Final EIS should include a discussion of the impacts of each pollutant, whether it be increased risk of cardiopulmonary problem, cancer, acid precipitation, eutrophication, etc. Citizens should also be informed that standards are developed based on subjective determinations of 'acceptable risk' and that those standards are not always met.

Response:

The Department has reviewed the potential emissions from the CES facility and has conducted air quality modeling analysis of these pollutants. The results of this analysis are discussed in the Draft EIS beginning in Section 4.10.1.1.2. The Department has determined that CES has demonstrated compliance with the National Ambient Air Quality Standards, the Montana Ambient Air Quality Standards (NAAQS/MAAQS), and the Prevention of Significant Deterioration (PSD) increments. The NAAQS/MAAQS are established as health based standards. The AAQS are designed to protect public health with an adequate margin of safety (primary standard) and promote public welfare (secondary standard). By demonstrating compliance with these standards, CES has demonstrated non-significant impacts from these pollutants.

82. Without a compelling state interest, it is not clear how the increase in pollution associated with the permitting of this project fulfills the Montana Constitution's requirement that 'The state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations.'

Response:

Any discharges or emissions authorized by permits issued by the Department must be in compliance with requirements established in laws and rules that implement this provision of the Constitution. See response to Comment 81.

MISCELLANEOUS CONCERNS AND ERRATA

83. Pg 4-79, Introduction of whirling disease: The FWP biologists have indicated that all the tributaries to the Missouri already show signs of whirling disease in them already. Why doesn't the DEIS recognize that?

Response:

FWP has stated that fish in the Dearborn River do not have whirling disease. Because fish in the Dearborn River are not yet infected, FWP is taking precautions to maintain the fishery.

84. Pg 4-80, Silver City Loop and Mainline #4 Compressor Station: No mention of Park Creek - is that because it is not a perennial?

Response: Yes

85. For accuracy and clarification to the DEIS, MPC also suggests the following changes: Page A-3, Montana Department of Transportation, change "grants state highway encroachment permits" to "grants state highway utility occupancy permits".

Response:

DEQ understands that MPC would apply for all necessary permits for pipeline construction.

86. Under the Proposed Action, the DEIS indicates six (6) resource areas (land use, fisheries, socioeconomic, soils, vegetation and wildlife) that may experience significant impacts. MPC does not agree that impacts are of the significant level. Nevertheless, MPC agrees to work with the DEQ to finalize and to implement mitigation measures that will mitigate the perceived impacts to something less than significant.

Regardless of the interpretation of the significant impacts, MPC will work with the DEQ to finalize and implement the Mitigation Alternative.

For accuracy and clarification to the DEIS, MPC also suggests the following changes to the DEIS.

Pg 2-30, 2.1.2.3, Second Paragraph "This new compressing station would consist of three 1,600-horsepower units, identical to Mainline #3." Suggest: identical to the gas turbines at Mainline #3.

Pg 2-43/2-48, 2.1.2.10, ROW Crossing of Transportation Routes, Railroad Crossings, first paragraph: "The two rail lines in this area would also be bored at the same time." Suggest: "The directional drill of Silver Bow Creek would also cross the two rail lines in this area."

Pg 2-51, Directional Boring Methods: change title to "Directional Drilling Methods"

Pg 2-51, Directional Boring Methods, first sentence, "A small diameter pilot hole would be drilled along the designed path at an angle from 8-18 degrees from the horizontal." Suggest: "A small diameter pilot hole would be drilled along a designed path entering and exiting the ground at an 8-18 degree from horizontal."

Pg 2-73, 2.4.2.2.5, Derivation of the Proposed Action, Compression: "Mainline #1 - a replacement of two existing Cooper-Superior compressor 1,100 units with two, 2,000 Hp units resulting in a net increase in station horsepower of 1,800 hp. Should read "Mainline #1 - an addition to the existing station of one 2,370 Hp unit."

Pg 3-24, Mainline #1 Compressor Station: "Upgrades that are proposed for Mainline #1 Compressor Station east of Cut Bank would occur within existing structures and yards. There would not be a new introduction of visible equipment or structures. Should read: "The upgrade that is proposed for Mainline #1 Compressor Station east of Cut Bank would occur within the existing yard. There will be a new structure to house the new compressor."

3.3 Geology Resources, page 3-29 delete reference to Cut Bank Loop

Pg 3-78, 3.8.2.3, Peregrine Falcon: There is no Cut Bank Loop. Omit "An historic eyrie is located within the study area on the Cut Bank Loop (Flath 2000). This nesting area has not been used since 1976. The area is surveyed every spring by the FWP. The

closest observation of a peregrine falcon was an adult female seen approximately 20 miles southwest of the historic eyrie on July 11, 1999."

Pg 4-12, Wolf Creek Loop and Mainline #3 Compressor Station: "Work involving the upgrading of the existing compressor station would be confined to existing buildings within the property. Impacts to visual resources would be negligible." Suggest: Work involving the upgrading the existing compressor station will be confined to existing areas. Visual impacts will include an additional building(s) and equipment matching the structures and equipment currently at this location. Impacts to visual resources would be negligible.

Pg 4-13, Mainline #1 Compressor Station: "Work involving the upgrading of the existing compressor station would be confined to existing buildings and areas within the property. Impacts to visual resources would be negligible." Suggest: "Work involving the upgrading the existing compressor station will be confined to existing areas within the property owned by MPC at this location. Visual impacts will include an additional building(s)and equipment matching the structures and equipment currently at this location. Impacts to visual resources would be negligible."

4.5.1.2.8 Hydrostatic Testing, page 4-34, change 8.6 million gallons to 7.5 million gallons. The 7.5 million gallons is also referenced in Table 2-5.

4.6.1.2 Natural Gas Pipeline, page 4-41, Silver City Loop and Mainline #4, third paragraph, change Approximately 20 acres to Approximately 5 acres.

Pg 4-72, 1. Stream Crossing Method: Boring is listed as a stream crossing method. This is not a viable option. You can't control the subsurface water, your bore pits would most likely cave-in from the water, and the river/stream being attempted to bore would likely wash out into your bore creating a real problem.

Pg 4-73, Boring: Boring is not proposed for the Teton. Horizontal Directional Drilling is proposed.

Pg 4-74 & 4-75, 4. Substrate Composition, second paragraph, fourth paragraph:
Boring is again mentioned. Boring is not a feasible option on these crossings.

Pg 4-83, Sun River: Reference to boring in the second paragraph. Boring is not a feasible option on these crossings.

Pg 4-84, Teton River, "need to be bored": "need to be directionally drilled."

Pg 4-107, 4.10.2.5 Mainline #1 Compressor Station, first paragraph: should read: "Construction would include the addition of one 2,370-horsepower compressor engine."

Pg 4-113, 4.11.1.2.4 Mainline #1 Compressor Station, "The decrease is due to the replacement of two reciprocating compressors with quieter turbine compressors (MPC 2001c). MPC is not replacing compressors, it proposes adding one 2370-horsepower reciprocating compressor.

APPENDIX A

Page A-1, Montana Power will apply for a MPDES permit to discharge hydrostatic test wastewater for the pipeline projects.

Page A-3, Water Rights Bureau, remove reference to Cut Bank segment.

Response:

DEQ will include all of these recommended changes in the Final EIS.